

The title

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The authors made the following contributions. First Author: Conceptualization, Writing - Original Draft Preparation, Writing - Review & Editing; Ernst-August Doelle: Writing - Review & Editing.

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Abstract

One or two sentences providing a **basic introduction** to the field, comprehensible to a scientist in any discipline.

Two to three sentences of **more detailed background**, comprehensible to scientists in related disciplines.

One sentence clearly stating the **general problem** being addressed by this particular study.

One sentence summarizing the main result (with the words “**here we show**” or their equivalent).

Two or three sentences explaining what the **main result** reveals in direct comparison to what was thought to be the case previously, or how the main result adds to previous knowledge.

One or two sentences to put the results into a more **general context**.

Two or three sentences to provide a **broader perspective**, readily comprehensible to a scientist in any discipline.

Keywords: keywords

Word count: X

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Methods

We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study.

Participants

Material

Procedure

Data analysis

Statistical Analyses

Sample size was determined by carrying out a power analysis, in which a small sample of pilot data was used to determine an appropriate sample for within-subjects tests of equivalence where the equivalence bounds were $-.4$ and $.4$ standard deviations from the mean, alpha was $.05$, and power was $.8$.

To determine the relative effect for language, the production data were analyzed using generalized linear mixed effects models in which relative VOT was modeled as a function of language (French, Spanish, English and consonant (p, t, k). For each model, subjects and words (item) were random intercepts. The residuals were determined to be normal by visual inspection of a Q-Q plot and a residuals versus fits plot. In order to determine the individual contribution of each fixed effect predictor and to derive main effects, nested model comparisons were carried out. These nested model comparisons began with an intercept-only model and added the fixed effect predictors of language and consonant one at a time.

To test for practical equivalence, participant mean relative VOT per language were utilized to carry out paired tests of equivalence (TOST; Lakens, 2017). The equivalence

bounds were set to -.4 and .4 standard deviations from the mean respectively, a small effect size reported in L2 literature (Plonsky & Oswald, 2014).

Finally, initial and post-hoc t-tests were used for inclusion and subsetting procedures. The initial t-tests were run per participant to determine whether there was a difference between Spanish and English relative VOT. The post-hoc t-tests were used as a method of subsetting the data into subgroups in which participants showed greater influence of either L1 or L2 influence.

Results

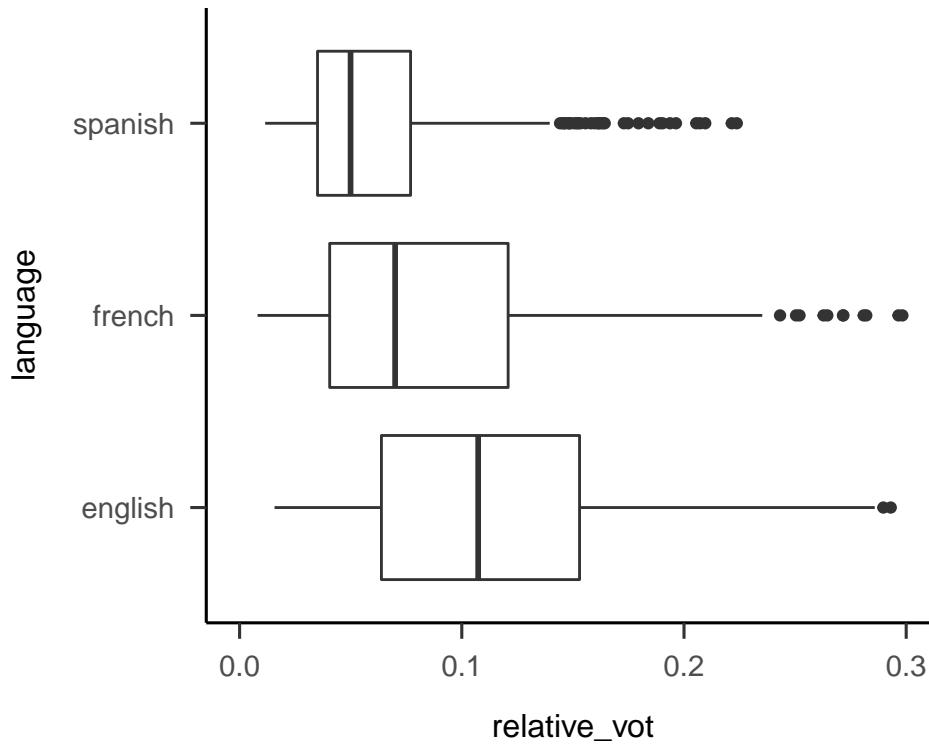
Table X lists the mean values of the pooled relative per language, and table X lists the value per consonant in each language.

language	text	Relative VOT	SD
english	k	0.141	0.059
english	p	0.087	0.057
english	t	0.112	0.053
french	k	0.143	0.057
french	p	0.061	0.054
french	t	0.077	0.052
spanish	k	0.092	0.043
spanish	p	0.041	0.020
spanish	t	0.051	0.031

language	Relative VOT	SD
english	0.113	0.061
french	0.088	0.063
spanish	0.062	0.040

Figure X plots relative VOT as a function of language. An inspection of the boxplot suggests that French relative VOT falls between that of English and Spanish.

Warning: Removed 9 rows containing non-finite values (stat_boxplot).



Nested model comparisons revealed a main effect for both *language* (report) and *consonant* (report). No main effect was found for the language x consonant interaction. Overall, the best-fitting model explain X% of the variance observed with fixed effect predictors (marginal R squared), and X% of the variance in the data with the added random effects (conditional R squared). The parameter estimates of the best fitting model suggest, with the effect of consonant held constant and English as the baseline, relative VOT increases by X in the case of Spanish and X in the case of French. These parameter estimates, coupled with the visual information provided by the boxplots, suggest that, overall, French productions fall between those of Spanish and English.

Discussion

References